

2.1 × 0.8–1.1 mm, 0.2–0.4 mm thick ...

..... *D. cacuminis* var. *decurrens*

The varieties of *D. cacuminis* are an example of taxa whose distribution at the highest elevations in the Serra do Espinhaço and further north in Bahia is correlated with their differentiation. These may have resulted from either long distance dispersal and random selection of genotypes or Pleistocene climatic changes with drastic alterations in the distribution of the vegetation and resulting differentiation (Kirkbride, 1976).

In my opinion, the latter is more important in this case and in the genus *Declieuxia*.

#### LITERATURE CITED

KIRKBRIDE, J. H., JR. 1976. A revision of the genus *Declieuxia* (Rubiaceae). Mem. New York Bot. Gard. 28(4): 1–87.

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## A NEW COMBINATION FOR A PROBLEMATIC CENTRAL AMERICAN APOCYNACEAE

***Prestonia woodsoniana*** (Monachino) A. Gentry, comb. nov. *Echites woodsoniana* Monachino, Bull. Torrey Bot. Club 86: 245. 1959. TYPE: Mexico: Michoacán: *Hinton 15325* (holotype, NY, isotype, MO).

*Echites parviflora* Sesse and Moç., Fl. Mex. 44. 1893. non Roxb. (1832) nec Afz. ex Ettingshausen (1861).

*Prestonia caudata* Woods. Ann. Missouri Bot. Gard. 47: 79. 1960. TYPE: Costa Rica: Puntarenas: *Holm and Iltis 243* (MO).

This curious plant has an equally curious taxonomic history. Its generic affinities are not at all evident; in fact, it is so unusual in Apocynaceae that I tried to refer unidentified specimens to Asclepiadaceae before I was familiar with the species. The salient characteristics are the caudately elongated corolla lobes, which are densely puberulous above; these unusual lobes and the short corolla tube give the plant a distinctly Asclepiadaceous appearance. Since its best generic assignment is to *Prestonia*, one of the Apocynaceae genera that most closely approaches Asclepiadaceae, it may well be a survivor of the ancestral plexus from which Asclepiadaceae arose.

Presumably Woodson never saw material of *Echites parviflora* Sesse and Moçônio. In his monograph of *Echites* and related genera (Ann. Missouri Bot. Gard. 23: 169–438. 1936) he listed it as an unassigned rejected species “impossible to interpret.” However, two years later (North American Flora 29: 103–192. 1938) he resurrected it, reproducing the Sesse and Moçônio description, and accepting it in *Echites*. Monachino (Bull. Torrey Bot. Club 86: 245–247. 1959) re-

alized that *E. parviflora* Sesse and Moçônio is a later homonym of *E. parviflora* Roxb. as well as of *E. parviflora* Afz. ex Ettingshausen. From the description Monachino recognized the Sesse and Moçônio plant as being conspecific with a plant collected by Hinton in Michoacán and Guerrero, Mexico, and proposed the nomen novum *E. woodsoniana* for it, substituting one of the Hinton collections as type. Meanwhile, Woodson received a Costa Rican collection of the same species and described it as an unusual species of *Prestonia*, noting that its only close relative in *Prestonia* is West Indian *P. agglutinata* (Jacq.) Woods., distinguished by similar narrowly elongate corolla lobes and exappendiculate corolla tube. Unfortunately, Woodson's description of the Costa Rican plant appeared one year later than Monachino's of the Mexican one, necessitating the new combination *Prestonia woodsoniana* (Monachino) A. Gentry, if Woodson's decision to include the species in *Prestonia* is accepted.

This species turns out to be widespread in the dry forest area along the Central American Pacific coast, ranging from Guanacaste and adjacent Puntarenas Province in Costa Rica to Guerrero and Michoacán in Mexico. There are recent collections from both Honduras and Nicaragua, as well as Costa Rica at MO. Unfortunately, the recent collections of *P. woodsoniana* have all been misidentified as *Echites tuxtliensis* Standl., a somewhat similar-looking (except for the much longer corolla tube and non-caudate corolla lobes) species from the Caribbean side of northern Central America and southern Mexico. *Echites*

*woodsoniana* was apparently included in *E. tuxtliensis* in the Flora of Guatemala (Fieldiana, Bot. 24(8): 334–407. 1966) as well. Presumably all Pacific coast collections of *E. "tuxtliensis"* are actually *Prestonia woodsoniana*.

It should be noted that my transfer of Monachino's epithet to *Prestonia* reflects no firm opinion that this species really belongs in that genus. Rather, I am merely accepting Woodson's judgement to that effect. The definitive character

of *Prestonia*, the faucal annulus around the mouth of the corolla tube, is so weakly defined in *P. woodsoniana* as to be virtually non-existent. Nevertheless, the specialist in Echitoideae considered this plant best referred to *Prestonia* and I assume that that remains the best placement pending another revision of the genus.

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## ALSTONIA (APOCYNACEAE): ANOTHER PALAEOTROPICAL GENUS IN CENTRAL AMERICA

Representatives of several palaeotropical genera have been discovered in Central America in recent years. So many examples of this pattern have now turned up (see Gentry, 1982: 124–125) that this disjunction is no longer surprising, if no less interesting. Presumably many of these genera with Central American range disjunctions, usually with relationships to Asian rather than to African taxa, reflect remnants of a widespread tropical Laurasian Tertiary flora (cf. Raven & Axelrod, 1974; Gentry, 1982).

While preparing a summary of Apocynaceae taxonomy for the Missouri Botanical Garden's weekly Floristic Taxonomy Seminar, I was startled to realize that the endemic Central American genus *Tonduzia* looks suspiciously similar to many species of the widespread palaeotropical genus *Alstonia*. Further study revealed that the striking resemblance is a real one and *Tonduzia* should be reduced to the synonymy of *Alstonia*. Indeed such a reduction was proposed long ago by Pichon (1947), who noted that there is nothing to distinguish *Tonduzia* from *Alstonia* and reduced it to a section of that genus. Although Pichon treated *Tonduzia* as a distinct section of *Alstonia*, it constitutes a poorly demarcated one: every one of the distinguishing features of section *Tonduzia* are shared with one of the other two sections of *Alstonia* that he recognized. That even such an inveterate generic splitter as Pichon (cf. comments in Gentry & Tomb, 1979: 756–757; Gentry, 1980: 8), who proposed two new segregate genera from *Alstonia* and resurrected two others in the same paper in which he sank *Tonduzia*, considered *Tonduzia* congeneric with *Al-*

*stonia* should have rendered the merger definitive. However, Pichon's proposal appears to have been overlooked by all subsequent workers (e.g., Standley & Williams, 1969; Nowicke, 1970; Woodson, in herb.) and *Tonduzia* is still recognized in Willis' Dictionary (Airy Shaw, 1973) and in all North American herbaria.

Pichon (1947) was aware that several species of *Tonduzia* had been described but had seen material of only the type species, *Tonduzia longifolia* (DC.) Mgf. (*T. parvifolia* Donn. Sm. is a synonym of *T. longifolia*) and refrained from proposing new combinations for the other species. Thus the only specific epithet available for a Neotropical species of *Alstonia* is *A. longifolia* (DC.) Pichon. Three species of *Tonduzia* are now accepted (Standley & Williams, 1969) necessitating the following new combinations in *Alstonia*:

***Alstonia macrantha*** (Woods.) A. Gentry, comb. nov. *Tonduzia macrantha* Woods., Ann. Missouri Bot. Gard. 24: 12. 1937. TYPE: Guatemala. Quezaltenango: Skutch 871 (MO).

*T. longipedunculata* Woods., Publ. Field Mus. Nat. Hist., Bot. Ser. 23: 78. 1944. TYPE: Guatemala. Sololá: Steyermark 47313 (MO).

***Alstonia pittieri*** (Donn. Sm.) A. Gentry, comb. nov. *Tonduzia pittieri* Donn. Sm., Bot. Gaz. 49: 456. 1910. TYPE: Guatemala. Guatemala: Deam 6098 (MO).

Recognition of *A. pittieri* as specifically distinct is on rather tenuous grounds as the broader leaves and relatively high stamen insertion cited